Fermilab

U.S. DEPARTMENT OF ENERGY | Office of Science

Status of the international governance stakeholders committee

Joe Lykken

iIEB Meeting, Sept 23-24, 2014

Working group on international governance for LBNF

- This is an informal forum for unofficial discussions about the higher-level aspects of international governance for LBNF
- This group will coordinate with the iIEB, acting as a resource for international governance aspects of the LBNF proposal
- To this end, the working group will craft a short document describing areas of consensus on goals, and describing a possible model for governance of LBNF with a strong international footprint
- We will also highlight issues requiring further attention

Membership

- Purniah Boddapati
- Carlos Henrique de Brito Cruz
- Jun Cao
- Brajesh Choudhary
- Paco Del Aguila
- Antonio Ereditato
- Josh Klein
- David Lissauer
- Joe Lykken (chair)
- Antonio Masiero
- Tony Medland
- Marzio Nessi
- Andre Rubbia
- Michael Salamon
- Jim Strait
- Robert Svoboda
- Agnieszka Zalewska

Assumptions of the exercise

- The LBNF near and far detectors will be designed, built, and operated by the new international collaboration
- As the host laboratory, Fermilab (with separately negotiated contributions of international partners) will have responsibility for the infrastructure: caverns, beamline, cryosystems, accelerator
- International aspects of LBNF would be defined in a set of bilateral agreements

Observations (so far)

- The international collaboration should develop the science strategy, design, and optimization of the experiment ("bottom–up process"). This will attract the best scientists and result in the best experiment.
- Design of the experiment cannot be limited to the detectors since, e.g. beam optimization will play a crucial role. International collaboration must have a well defined interface to the infrastructure.
- Bottom-up experimental design must iterate with funding agencies to make sure scope matches resources. This will require global coordination to ensure that resources are identified for all elements of the experiment

Observations (so far) part 2

- Fermilab, acting as agent for the US DOE, would have overall responsibility for directing the construction project, for maintaining the infrastructure, and providing the beam
- Fermilab would not direct or operate the experiment
- Domestic agreements would be needed to allow Fermilab to take responsibility for the far site infrastructure, serving as the single point of contact for the international collaborators and stakeholders
- Need coordination of international agreements to avoid single point failures
- Concern that US process for bilateral agreements can be cumbersome

Observations (so far) part 3

- One challenge to coordination of bilateral agreements is that different countries are at very different stages with respect to having identified how or if they want to participate in LBNF
- Funding agencies will be looking to receive proposals from their own communities, and to identify a critical mass of internal interest and expertise that would justify a given scope of engagement with LBNF

The LHC model

- We are investigating the LHC model as a successful model for international collaborations building large experiments in conjunction with a host laboratory
- Successful mechanisms such as the RRBs (Resource Review Boards) and LMC (LHC Machine Committee)
- There will be some challenges adapting this model to a DOE project

Plans of the working group

- Two meetings so far, a few more needed
- Then draft a document